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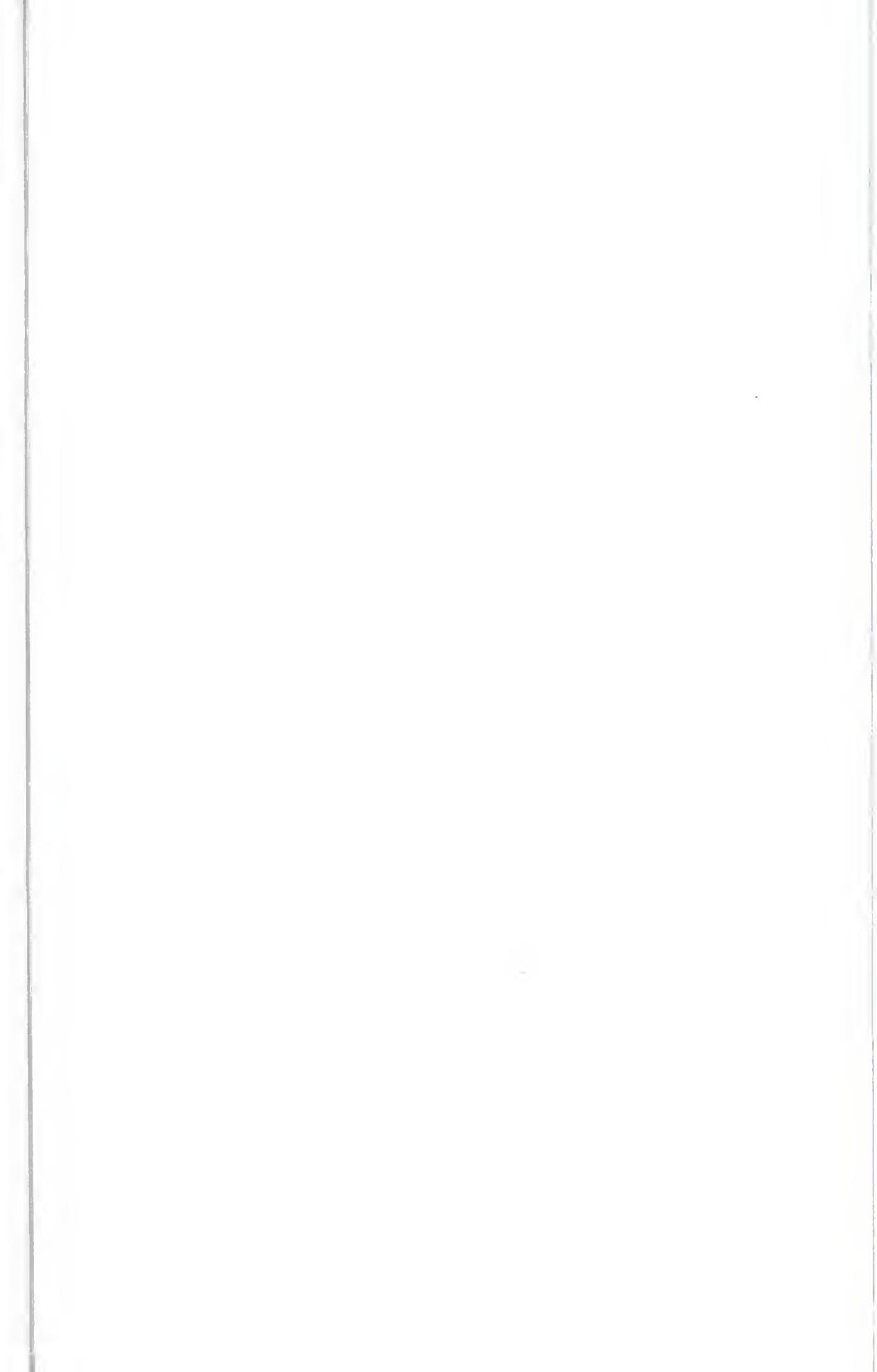


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**NEW, REESTABLISHED, AND
REORGANIZED SERVICES
of the
DEPARTMENT OF HEALTH**

January 15, 1935—March 1, 1938



**COMMONWEALTH OF PENNSYLVANIA
EDITH MacBRIDE - DEXTER, M. D.
Secretary of Health**

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REORGANIZED SERVICES
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FOREWORD

This pamphlet gives a brief account of New, Reestablished, and Reorganized Services of the Department of Health, Commonwealth of Pennsylvania, from January 15, 1935 to March 1, 1938.

This State-wide program for the betterment of public health could not have been accomplished had we not at all times had the sympathetic support of His Excellency, Governor George H. Earle, who is deeply interested in the health and welfare of the citizens of Pennsylvania. This interest has been manifested particularly in his determination to enlarge and modernize our State institutions and in the creation of the State Board of Housing for slum clearance and the improvement of living conditions among the low income groups.

We have had splendid cooperation in our health programs from the Medical Society of the State of Pennsylvania and other agencies and organizations throughout the Commonwealth.

Edith MacBride-Dexter, M.D.
Secretary of Health

Note : Services are listed as nearly as possible in the order in which they were established, reestablished, or reorganized.

NEW AND REESTABLISHED SERVICES OF THE DEPARTMENT OF HEALTH

January 15, 1935—March 15, 1938

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DISTRIBUTION OF BIOLOGICAL PRODUCTS

One of the first activities in the Department of Health under this Administration was a complete reorganization of the distribution of all State biological products. Inspectors from the central office were sent out to inspect the conditions under which these products were stored by local distributors.

When the distribution of State diphtheria antitoxin and other products was inaugurated 30 years ago it was necessary, because of the lack of a comprehensive highway system and the consequent difficulty which might be encountered in promptly securing these products from a centralized distributor, to establish a large number of these stations throughout the Commonwealth of Pennsylvania.

Consequently there were 759 distributing stations, many of them almost inactive, and as we found on investigation, absolutely lacking in the facilities needed to properly care for these State products. Some of them were kept under sinks, in cellars, over radiators and under many other similar conditions.

A large sum of money was spent each year in keeping these stations stocked with fresh products and even then there could have been an element of uncertainty in regard to the potency of antitoxin and other biological products kept under such inadequate refrigeration conditions.

It was found possible, after careful study, to adequately cover the State and make State antitoxin promptly available to every physician within the Commonwealth with a much smaller number of stations, and after careful investigation of facilities, 329 stations were eliminated.

We now have 430 stations well equipped for keeping biological products under the proper conditions, with temperature ranging from 35 to 45 degrees. These stations are inspected at regular, but not fixed intervals. In addition 37 hospitals are stocked with State biologicals.

As a result of our inspection in 1935, it was discovered that for a great many years these biological products had been distributed to anyone who asked for them regardless of ability to pay.

This method of distribution was costing the taxpayers of this Commonwealth in the neighborhood of \$91,000.00 per year, and over a ten year period this cost had amounted to very close to one million dollars.

This method was changed and the requests now must be signed by a member of the family, by the physician in charge, and by the distributor. In this way the supply is limited to those for whom it was originally intended. As a result of this change in 1935 the cost of distribution was reduced to a little over \$42,000.00 saving the taxpayers over \$50,000.00. In 1937 the cost was \$48,487.00 which included a donation of drugs amounting to \$8,150.00 to flood sufferers in the Mississippi Valley.

In 1936 we added anti-meningococcic serum to our list of free biologicals and it is given under the same regulations as is diphtheria antitoxin.

DENTAL DIVISION

In May 1933, due to what was thought to be a limited appropriation available to the Department of Health, the Dental Division was discontinued. The present administration, however, considers this an important service to the children of Pennsylvania and while it was not possible at first to proceed on a large scale, the Division was re-established in April 1935 with a Dentist in charge.

Since then with the aid of Social Security funds, enabling us to organize a corps of 10 Dental Hygienists and one supervisor, the Division has given a good account of itself.

In the past the principal duties of the Dental Hygienist seems to have been to work in public schools and clean as many teeth as possible. The idea of health instruction as an element in building good teeth seems to have been almost overlooked.

Under our present program emphasis is laid on the idea that the prevention of dental caries and consequent alarming dental conditions existing among the pupils in many of our Fourth Class School Districts, can best be insured by education of the child in school.

Prophylaxes is used only to put across the educational program,

to make the subject a reality to the pupil, and arouse in him some recognition of the health value of good teeth.

Defects are reported and the child is referred to his family dentist for correction. In this way we are able to lend some aid in eliminating the diseases of children which follow as a result of infected teeth.

As an example of the work of our Dental Hygienists: The Superintendent of Schools in a northeastern county wrote us recently that the people were eagerly awaiting the return of the dental hygienists and that the dentists were delighted with the pick-up in their practice following the dental hygienist's visit, as every child who had had prophylaxis, had been taken to the family dentist either by their parents or by a local organization.

VITAL STATISTICS

An inspection of the records of the Bureau of Vital Statistics—early in 1935—found them far from adequate. Indices were missing for births and deaths over a number of years, extending in some cases back as far as 1920. Much work has been done to bring these records up to date.

The coding, typing, alphabetizing and dexigraphing of the 1935 and 1936 births and deaths and 1920 and 1931 births have been completed. All birth records for 1921 and 1932 have been coded and are being typed at the present time. As soon as records are available an index will be prepared for 1937 births and deaths.

During the past three years \$230,683.00 was received in payment for certified copies and searches. This is \$89,109 more than was turned into the State Treasury in the previous three year period.

A dexigraph has been installed and when possible certified copies are dexigraphed. A modern accounting system has been installed in the Harrisburg, Philadelphia, and Pittsburgh offices.

Over 3600 requests for statistical information were filled in the past three years, and 180,000,000 punch cards have been tabulated—this is estimated on the basis of many tabulations on the same card.

INSTRUCTION CAMP

The Instruction Camp at Mont Alto for training of field personnel of the Department of Health is another activity that was eliminated in 1926.

In 1935, after a lapse of nine years this important activity was revived. Each year, County Medical Directors, tuberculosis clinicians, State nurses, health officers, dental hygienists, and other members of the field force are brought together and given intensive instructions in every phase of public health work. Members of the Department staff and prominent physicians from the State give the lectures.

In order to keep our field forces functioning at all times, only half of the personnel can be sent to the Instruction Camp at one time. At the end of the initial period, the first group returns to their respective districts and others come in for instruction.

In conjunction with this camp, an annual course of instruction is given to new borough health officers, who are required to spend a two week's period at Mont Alto for instruction in health laws and regulations pertaining to their duties in their localities before they are given the official certificate from the Department of Health.

We feel that much good is derived from these annual instruction camps and hope to be able to conduct them in the future.

COMMUNITY SANITATION

In September 1935 a community sanitation project was started in one county of the State, with money made available by the United States Public Health Service to the Department of Health.

This project had for its purpose the replacement of insanitary outdoor toilets which were in many instances a menace to the entire community, with sanitary fly-tight latrines of a type approved by the Department of Health and the United States Public Health Service. This activity under which up to the present time 25,278 such latrines have been built in 65 counties throughout Pennsylvania, in addition to providing work for many unemployed persons, has greatly improved conditions in rural sections, fair-grounds, parks, private works and small industrial villages throughout the Commonwealth, where sewage systems and disposal plants are not accessible, and is another step in the prevention of typhoid fever and similar diseases.

FLOOD

It would be unfair in a review of this kind not to comment on the work of the Department of Health during the flood of 1936. While this could hardly be termed a new or reestablished service, it was an emergency that this Department had never before had to face.

The Department of Health was made responsible by the Governor for the medical care of the flood victims, for medical supplies, nursing care and sanitary clean-up following this most wide-spread flood in the history of the Commonwealth.

The Red Cross was put in charge of food, clothing and shelter of the flood victims, and the State Police were in charge of policing the territory. This ruling is in accordance with the rules laid down by the Conference of State and Provincial Health Authorities of North America.

It is gratifying to note that not more than one-half dozen cases of disease could be traced to the flood. Much of the credit for this is due our medical and nursing staffs in Harrisburg and throughout the State, to our own engineers who worked night and day to provide safe water supplies for communities whose water supplies were either made unsafe or temporarily destroyed by the flood waters, and to the foresight of engineers and waterworks operators in the affected areas in providing safeguards before the flood waters actually came upon them.

During the emergency, typhoid vaccine was supplied for the immunization of 87,296 individuals. In addition we furnished 1,000 packages of tetanus gas gangrene antitoxin, and 1,000 packages of plain tetanus antitoxin. The total cost to the Department was \$84,103.53, which included the purchase of 950 tons of lime for sanitary clean-up and 115,000 pounds of lime for disinfection of private water supplies.

During the height of the flood and for several weeks thereafter the Department worked day and night with few of the bureau chiefs and engineers getting more than a few hours of sleep in twenty-four.

The lessons learned in those hectic days have fitted everyone for any possible repetition of this situation, and during the disastrous floods in the Ohio River Valley engineers lent by the Pennsylvania Department of Health gave outstanding service in providing safe water supplies in Wheeling and Huntingdon, West Virginia, and in many other affected communities.

DEWATERING FLOODED COAL MINES

As a result of these floods, many coal mines in both the hard and soft coal regions were flooded, throwing out of work thousands of the miners who were dependent on the mines for a living. The most dramatic instance was in the neighborhood of Pittston, where it was estimated that over nine billion gallons of water had entered the coal mines.

As a result approximately 5,000 miners, with 15,000 dependents were thrown out of work, and if these mines were not dewatered, ruination faced the neighborhood which is largely dependent upon coal mining.

The Governor made a personal tour of inspection, and induced the coal operators to recondition and operate the mines if the State would give financial assistance. This resulted in a special appropriation to the Department of Health for this work, because of the possible menace to the public water supplies by acid waters from flooded coal mines. As rapidly as possible necessary equipment was purchased and the actual dewatering began in the middle of June, 1936.

A preliminary estimate of the total amount of water pumped to date with State aid from the mines of the anthracite field shows about 19½ billion gallons removed and for the bituminous field about 1.7 billion gallons.

Because of outstanding bills and contingent commitments the exact cost of the work to date cannot be given.

In addition to the work of actual dewatering, a half mile long protective dyke with rip-rapped face is being completed with W.P.A. assistance along the Duryea side of the Lackawanna River to prevent a recurrence of the flooding. Also, under the provisions of Appropriation 29-A, 1937, the Eureka Slate Quarry at Pen Argyl was dewatered with State aid by the County Commissioners and the body of a drowned boy recovered.

As a result of dewatering operations in the anthracite fields alone, about 6,400 mine workers with 19,000 dependents have been returned to work. There has thus been restored a monthly payroll of over \$700,000.00. Because of market conditions in the bituminous fields, the dewatering operations in those fields have had relatively little effect in increasing employment, but it is to be expected that with improvements in the bituminous market there will be an increase in the miners employed as a result of the dewatering operation.

It is evident from the above facts that the State's investment of \$700,000.00 has paid large dividends in the reduction of what would otherwise have been a heavy relief load upon the State.

ROADSIDE WATER SUPPLIES

Another service which was discontinued in 1930 was the inspection and analysis of roadside water supplies. This was reestablished in 1936.

Three travelling laboratories, each manned by a technician and assistant, in 1936 covered approximately 2800 miles of main and connecting highways, inspected and analyzed the water from 2788 roadside wells and springs, and erected 1708 safe water signs. We found 1080 water supplies were unsafe for drinking purposes.

In 1937, under Social Security Funds, we placed two new laboratories in the field, which made it possible to cover many of the less traveled highways and to include the examination of private water supplies as well as public wells and springs, along the highways.

This work was carried on in all of the counties of the State except Union and Forrest. In all, about 4200 miles of road were covered and approximately 4000 supplies examined. 2200 of these were found to be safe and were so placarded. 1551 were denied safe water placards on account of unsatisfactory analysis. 349 supplies are now pending, i.e. we have made suggestions for the improvement of individual supplies which when made may lead to the issuance of a safe water placard. This supervision provides a safe water supply for the travelling public and helps to eliminate typhoid fever.

SEALING OF ABANDONED COAL MINES

Extensive work in the sealing of abandoned coal mines is also carried on by the Department of Health. There had been some coal mine sealing done by the Department in 1934 without very gratifying results. In 1936 the United States Public Health Service designated the Secretary of Health as its agent and allocated to Pennsylvania about \$1,500,000.00 for carrying on this work. It is only feasible in the bituminous coal regions.

This work has been carried on in 27 counties of the bituminous coal fields in the western part of Pennsylvania, where the equivalent of seven and one-half million pounds of concentrated sulphuric acid was pouring into the streams daily.

This source of pollution is detrimental to public water supplies in two ways, first—heavy increase in costs of operation due to the acid in the stream, and second—the damage to water filtration plants

through the sudden rises in acidity. It also destroys—in fact has destroyed—many of our streams as far as aquatic life and recreational purposes are concerned, and acres of farm lands. The water is also rendered unfit for stock watering and industrial purposes, and causes hundreds of thousands of dollars damage to the metal parts of boats, navigation locks, abutments of bridges, boilers and plumbing parts.

In 1936, 2,034,500 pounds of soda ash were used in the filtration plant at Aspinwall to neutralize the acid in the water caused mainly by mine drainage. This plant furnishes 70% of the water for the City of Pittsburgh. In 1937 only 104,600 pounds of soda ash were used for this purpose mainly because of the reduction of acid by the sealing of abandoned coal mines.

This situation had been recognized for years but it was not until a little over ten years ago that the officials of the United States Bureau of Mines at Pittsburgh realized that every mine, whether active or abandoned, constituted a small chemical factory, producing sulphuric acid through a combination of the sulphur contained in iron pyrites, water and oxygen from the air.

The Bureau, experimenting further, showed that by removing one of these factors, the formation of acid stopped.

Sealing of abandoned coal mines means merely the cutting off of the air supply, and the cutting down of the water supply, thereby reducing the formation of acid.

The first work to be started was a survey of the entire bituminous coal field, locating on standard sized maps all coal openings—active, marginal or abandoned—with an estimate of the discharge from each opening and the acidity of the discharge. This work is now completed and we find there are approximately 7775 mines of which 3934 are abandoned, 2649 active, and approximately 1192 marginal—i.e., not actually abandoned but not working at the present time.

During 1936 an average of 1700 laborers were working on the actual sealing of abandoned coal mines. 476 abandoned mines have been completely sealed and work is at present under way on 95 more. In round numbers, 80,000 closures of crevices, crop holes and shafts have been made. This has resulted in a reduction of over 1,000,000 pounds of acid per day and has made possible reclamation of oftentimes valuable land for farming and production purposes.

STATE LABORATORY

During 1936 a further step in reorganization was carried on in the State Laboratory in Philadelphia where a splendid piece of work is now being done in spite of a rather limited personnel.

We have completely changed the Wasserman technique bringing it up to date and in conformity with modern laboratory methods. The Department Laboratory was given a very high rating by the United States Public Health Service when an investigation of all laboratories was made recently.

Certain other services such as blood chemistry and blood sugar determinations, which were not strictly a matter of public health, had to be eliminated so as to confine the work of the laboratory to those services needed for the people of the Commonwealth who for financial reasons are unable to have the work done at a private laboratory. In the past three years a total of 461,799 analyses have been made at the State Laboratory as compared with 383,199 for the preceding three years.

SCHOOL MEDICAL INSPECTION

An important function of the Department is school medical inspection, which we have been able to reorganize during the last biennium. Since 1919, because of inadequate funds, it has been impossible to make a complete inspection in the Fourth Class or rural school districts.

There are 2306 schools in the Fourth Class Districts of the State, with an average of five or more class rooms to a school, and a total of 725,000 pupils.

In 1936 with \$26,000.00 allocated from our Social Security budget and a State appropriation of \$40,000.00, aided by a W.P.A. project covering the school inspection work in six counties, we were able to do a more nearly complete job of school medical inspection than had been possible in many years.

This year with a State biennial fund of \$250,000.00 we will be able to examine one half of the grades in each school and the remaining half next year. This will enable us to do a complete medical inspection once in every two years. During the past year the sanitary conditions of the Fourth Class School Districts have been greatly improved.

SHELLFISH INSPECTION

A new activity developed during the past year is that of shellfish inspection, which is of vital importance to the health of our people in spite of the fact that Pennsylvania produces no shellfish.

Some few years ago an epidemic of typhoid fever in the city of Chicago was traced to oysters from beds found in polluted waters. As a result the United States Public Health Service set up rigid regulations governing the shipping of all shellfish.

Shippers, reshippers, packers and wholesale merchants are required to keep an accurate record of the source, date and quantity of all shellfish that pass through their hands, and must have the approval of the Department of Health before they can do their work in this State.

PNEUMONIA CONTROL

Pneumonia is the most common and devastating of the acute infections occurring in this country and is exceeded only by diseases of the circulatory system and cancer. In 1936, 133,000 people died of pneumonia and influenza in the United States. In Pennsylvania in 1936, there were 9,094 deaths from pneumonia and it was listed as the third greatest cause of death. It is estimated that there were more than 25,000 cases of pneumonia in Pennsylvania last year.

These factors demonstrate that pneumonia is a major public health problem, and because of this the Department of Health has put on an intensive campaign for its control.

At a meeting of the Advisory Health Board held on July 26, 1937, pneumonia was made a reportable disease. This was the first step in our campaign. We then made a survey of the hospitals of the State, exclusive of Philadelphia and Pittsburgh, to learn whether they had technicians trained to type pneumonias and if so, if they would assure us 24 hour free typing service for pneumonia patients who were unable to pay for such service. To hospitals not having trained technicians we offered a week's training for technicians at a designated hospital training center. We paid the technicians a stipend of \$25.00 for the week and transportation to and from the training center, and paid the training center \$25.00 for each technician trained.

In certain counties in which there is no hospital, and a prominent physician has requested training to qualify himself to do pneumonia typing, and assured us of 24 hour free service, we have arranged for

such training and designated the office of the physician as the typing and distribution center for the county.

Approval was obtained from the United States Public Health Service for the use of \$60,000 unexpended balance in our Social Security fund for this pneumonia control work and it is under this fund that the work is being carried on.

We have had splendid cooperation from the hospitals. In a town or city having only one hospital, the hospital is designated as the typing and serum distribution center for that district. Where there is more than one hospital in a city, because of the high cost of pneumonia serum and the limited funds available for the work the hospitals are designated as typing centers and our local distributor of State biological products is made the distributing agent.

It must be remembered that there are 32 different types of pneumonia, but serum treatment applies only to those types that are caused by the pneumococcus.

Type I and Type II infections constitute about 60% of all cases of pneumonia. These statistics are based on the experience of other States as we have not had records in Pennsylvania from which to determine the predominating types. Typing sera for the 32 different types of pneumonias have been furnished to typing centers throughout Pennsylvania in an effort to determine the types predominating in the different sections of the Commonwealth.

At the present time we have 131 typing and distribution centers throughout the Commonwealth. State serum is available for any sufferer from pneumonia for whom the purchase of such serum would be a financial hardship. It may be secured by any physician. The physician must, however, first have the patient typed, and the receipt for the serum must be signed by the physician, the distributor and a responsible member of the family, to show that the patient's financial condition is such that he is eligible to receive State serum. The physician is also given a clinical report which he must return to the Department at the termination of the case. These clinical reports are being carefully studied in cooperation with the Pneumonia Control Commission of the Medical Society of the State of Pennsylvania under the chairmanship of Dr. Edward L. Bortz, to determine the value of the pneumonia control program. Doctor Bortz is Associate Professor of Medicine at the Post Graduate School of the University of Pennsylvania and Chief of Medical Service B at Lankenau Hospital, Philadelphia.

On December 15, 1937, free State serum for Type I and Type II was placed in 131 hospitals and other distributing centers throughout the Commonwealth, and there is available in the Department refrigerators at Harrisburg a limited supply of Types V and VII combined, Type VIII and Type XIV, the only other pneumonias for which specific serums are obtainable, which will be sent out immediately to physicians upon receipt of a telegram, or if serum of a suitable type is obtainable at the local drug store, the physician may secure it with the understanding that the Department will replace the serum used with State serum.

Pittsburgh and Philadelphia were originally omitted from our program because these two cities have always furnished their own diphtheria antitoxin and other biological products. Philadelphia, however, asked to have State pneumonia serum made available for her citizens as an emergency and we designated as distributing centers the University of Pennsylvania Hospital, Jefferson Medical College Hospital and Lankenau Hospital. Pittsburgh also was offered serum if necessary to tide them over an emergency, but has had its own program for the control of pneumonia in operation for a year or more.

As part of the publicity campaign on this program, we have placed 225 "Stop Pneumonia" signs on billboards along main traveled highways in an effort to bring before the people of the Commonwealth the availability of pneumonia serum. We have also placed posters in theaters and given numerous news releases on the subject. We have had excellent cooperation from the Pneumonia Commission of the Medical Society of the State of Pennsylvania, the medical profession and hospitals throughout the Commonwealth.

\$30,165 was spent by the Department to stock the 131 typing and distribution centers throughout the Commonwealth and up to March 1st, State serum had been used in 698 cases of pneumonia, at a cost of \$12,478, making the cost of the serum to date approximately \$42,500.

We hope by our extensive state-wide program, with the cooperation of the people of Pennsylvania, the medical profession, and the hospitals, to save the lives of many more sufferers from pneumonia who otherwise would succumb to this devastating disease.

X-RAY LABORATORY

On December 21, 1937, we established an X-ray laboratory at 212 North Third Street, Harrisburg. This X-ray laboratory is the largest

in the State, is equipped with the latest type of apparatus, and has a capacity to develop four hundred X-ray films per day. Its primary function is to develop and interpret X-ray films made throughout the State by our mobile X-ray units in pursuance of our program of tuberculosis case finding among High School and State Teachers' College students—a program which we consider of first importance in further control of tuberculosis throughout the State and which, without adequate X-ray equipment and service, would be impossible.

This Laboratory is under the direction of a noted roentgenologist, who, in addition to services rendered in connection with this laboratory, serves also as an expert supervisor, adviser and consultant of the X-ray laboratories at our three Tuberculosis Sanatoria and Crippled Children's Hospital in Elizabethtown. We have also lent him to the Department of Welfare as an adviser in X-ray work in their hospitals and other institutions.

DIABETES

Plans are under way for a State-wide survey to determine the number of diabetic patients in Pennsylvania as the first step in a comprehensive program for the control of this disease. This program will include an educational campaign with reference to diet and diabetes, laboratory facilities for early diagnosis, and the furnishing of insulin for indigent patients as soon as funds can be secured for this purpose.

Pennsylvania is the first State to undertake a comprehensive diabetes control program incorporating all of these features.

In planning the details of this diabetes control program, the Secretary of Health will consult with Dr. Edward L. Bortz of Philadelphia and has requested the Medical Society of the State of Pennsylvania to appoint a Commission on Diabetes to cooperate with the Department. Dr. Bortz has prepared a manual on diabetes and has done considerable work on the subject at the Lankenau Hospital, Philadelphia.

CANCER

Cancer is the second cause of death in Pennsylvania and as a means of providing early diagnosis for those unable to pay we plan to place 7 cancer clinics in the Commonwealth in an attempt to help eradicate this disease.

SOCIAL SECURITY

With the money received from the Social Security Act passed by Congress in 1935, and signed by the President in August of that year, Pennsylvania along with every other State, took the first steps in the nation-wide program to promote the interests of all Social Security by first protecting the health of the people.

Under Social Security funds it has been possible to extend certain services and increase personnel in doctors, nurses, senior milk inspectors, sanitarians, health officers, sanitary engineers, restaurant hygiene inspectors, clerks and typists. It has been possible to provide special training in public health work for Maternal and Child Health physicians, epidemiologists, and industrial hygiene physicians, laboratory technicians, and sanitarians in the Department.

We have been able to give courses in public health nursing at the University of Pennsylvania and at Duquesne University to 54 State nurses, so that our nursing staff has been greatly augmented and specially equipped and the Department is in a better position than ever before to give public health nursing service to the citizens of Pennsylvania.

Twenty-five State nurses attended a special six-week's course in orthopedics and basic physiotherapy given at the University of Pittsburgh, January 17 to February 25, 1938. This special course is designed to train State nurses to give more efficient service in the crippled children program of the Department, to assist at orthopedic clinics, to follow up and supervise the care of patients in their homes and see that the instructions of the orthopedic surgeon are carefully followed, and to familiarize them with the possibilities of rehabilitation. Twenty-five additional nurses started this course on March 1.

TUBERCULOSIS

One of our major attacks in the past three years has been directed against tuberculosis. With State funds and money received under the Social Security Act we have been able to expand considerably in this field.

An important part of our campaign is our case finding service. Under Social Security funds we have purchased two motorized X-ray field units, known as Juvenile Tuberculosis Case Finding Units. These units are the last word in X-ray equipment and were designed especially for the Department of Health and approved by the Moore

School of Engineering of the University of Pennsylvania. They are so constructed that they can be dismounted, re-assembled in the school or other building where the X-rays are made, and then remounted on the trucks for transportation to the next town or city.

Each unit is accompanied by a trained roentgenologist and a technician, and is sent into the counties to X-ray first year high school students in all schools of the State outside of Pittsburgh and Philadelphia.

No child is examined without the consent of the parents, consent slips being sent out in advance.

As the first step in this examination, the student is given the Mantoux test, and all positive reactors are X-rayed.

The films are sent at the close of each day's work in the field to the X-ray laboratory in Harrisburg, and the report of the X-ray findings is sent to the parents and the family physician.

In the first six counties visited by this unit in 1936 it is interesting to note that 50% of the parents consented to have their children Mantouxed. Out of some 14,000 examined in the first six counties, 14% gave positive reactions and approximately 80 cases showed symptoms of active tuberculosis. 16 counties were visited in 1937, but the results have not yet been tabulated and analyzed.

We requested permission from the Superintendent of Public Instruction, which he readily gave, to X-ray the first year and senior students at the State Teachers' Colleges. We found 500 positive reactors in these schools. This will help to prevent teachers who have tuberculosis from coming in contact with children in the public schools.

December 29 and 30, 1937 and January 3, 1938 we offered to Mantoux all State employees in Harrisburg and X-ray all positive reactors. 1918 State employees took advantage of this opportunity.

VENEREAL DISEASES

The venereal disease work has been increased considerably. Since 1920 the Department of Health has carried on venereal disease work for the indigent with State funds. With State funds and money received under the Social Security Act, we have added two doctors to our staff, 17 medical investigators, and have opened about 60 additional clinics throughout the State.

The medical investigators are carefully selected trained nurses registered in Pennsylvania, who have had four years of academic work in some accredited high school, have graduated from an approved hospital, and have personal qualifications for this specialized work. They are sent to the Institute for the Control of Syphilis at the University of Pennsylvania for special training. We are also giving our clinicians one week's free training at the Institute. The duty of the medical investigator is to see that the syphilis patient is under treatment and maintain contact between the physician and the patient.

From January 3rd to 8th, 1938, the Department of Health conducted a State-wide Wassermann Week. During this special period through arrangements with private physicians and clinics throughout the State, every citizen of the Commonwealth was given an opportunity to have a free Wasserman test made. Containers and mailing tubes were furnished by the Department and the tests were made at the Department of Health Laboratory in Philadelphia. As a result of this intensive campaign 31,872 Wasserman tests were performed. Of this number, 3772 were positive. The benefits resulting from this work have been two fold, first—a large number of cases of syphilis have been revealed which otherwise would have gone undiscovered and untreated, and second—the public has been educated and interested in the State and National venereal disease program.

Under a special allocation from its Social Security funds, and in cooperation with the School of Medicine, University of Pennsylvania, the Department of Health has established and almost finances a Cooperative Institute for the Control of Syphilis at the University under the direction of Dr. John H. Stokes, Professor of Syphilology. This Institute is the only one of its kind in this country and is for the special training of personnel in venereal disease work. Our Medical Investigators and Clinicians from all over the State are sent to this Institute for intensive training.

INDUSTRIAL HYGIENE

A new activity of the Department of Health is the work of the Division of Industrial Hygiene. With funds made available under the Social Security Act, this Division was transferred in March, 1936, from the Department of Labor and Industry to the Department of Health. There is a working agreement between the Department of Health and the Department of Labor and Industry whereby inspectors of Labor and Industry report to us on hazards found in the plants. These hazards are then inspected by a representative from the Division of Industrial Hygiene, and Labor and Industry in turn is advised as to how they can be corrected. An office has been established in Pittsburgh and one in Philadelphia to work in conjunction with inspectors of the Department of Labor and Industry. Under this Division we are also studying the conditions that cause silicosis, anthro-silicosis and asbestosis.

Crippled Children

Another very important program in the Department of Health is that for Crippled Children. With Social Security money we have been able to greatly extend our activities and since July, 1936, 84 diagnostic clinics have been held throughout the Commonwealth by 11 outstanding orthopedic surgeons and the chief surgeon of the Hospital for Crippled Children. 4695 children whose parents were unable to pay for orthopedic care have been examined at these clinics.

The children from this group needing short term hospitalization are hospitalized in local hospitals which meet the requirements of the American College of Surgeons, are equipped to do orthopedic surgery, and meet with the approval of the surgeon in charge. Cases requiring long periods of hospitalization are listed for the State Hospital for Crippled Children at Elizabethtown, and those for whom surgical treatment is not necessary are provided with such orthopedic appliances as are prescribed by the surgeon. Under this plan we pay the hospital \$4.00 per day for hospital treatment; this includes all services incident to the hospitalization of the child. All of the surgeons, with the exception of the Chief Surgeon of the State Hospital at Elizabethtown, receive an honorarium for holding these clinics but receive no money for operating on the children.

The State Hospital for Crippled Children at Elizabethtown has a bed capacity of 130 patients and an out-patient clinic service.

A ward in the Children's Preventorium at the Mont Alto Sanatorium was set aside some four or five years ago for the treatment of children who had recently recovered from acute attacks of anteriopoliomyelitis. A heated pool was provided where these children are given water gymnastic treatment.

Under our building program, which is a part of the Administration plan to modernize and expand the State institutions, we will add 160 beds to the State Hospital at Elizabethtown, a physiotherapy department which will include a large fresh water pool, a salt water pool, a Hubbard tank and two whirlpool tanks. The Hospital will also be provided with occupational and heliotherapy rooms and a new addition to the nurses home will be added to house the extra staff of nurses needed for the enlarged institution. Ground was broken on December 15, 1937.

When the new construction is completed at Elizabethtown we will be able to take care of the crippled children that are on our waiting list and transfer the treatment of polio cases from the Mont Alto Sanatorium to the Hospital for Crippled Children.

MATERNAL AND CHILD HEALTH

In Maternal and Child Health work we have increased our personnel of doctors and nurses and extended our pre-natal, post-natal and well-baby centers. It is under this grant also that we employ ten dental hygienists and one supervisor for our Dental Division, and three qualified nutritionists for field work throughout the State.

In 1936, as a part of the Maternal and Child Health program, 144 pediatric and obstetric institutes were held in different parts of the State for instruction of physicians. A similar program is being carried on this year.

Lecturers are secured for the institutes held in the western part of the State from the medical faculty of the University of Pittsburgh, and for the eastern part of the State from the University of Pennsylvania, Jefferson Medical College, Temple University, Women's Medical College and Hahnemann Medical College.

We have had very favorable reports from the physicians over the State concerning these institutes which are planned with the idea of bringing to the older physicians, particularly the physicians in the rural districts the latest developments in both obstetrics and pediatrics as part of the effort of the Department of Health to lower the maternal and child death rates.

SANATORIA BUILDING PROGRAM

Our three sanatoria at present have a capacity of approximately 2400 beds, and we usually have a waiting list of from 700 to 1000 patients. In order to take care of these, we plan to increase our capacity by thirteen or fourteen hundred beds. This will more than absorb our present waiting list and will provide facilities for the treatment of patients discovered by the new case finding program in which the Department of Health is engaged.

Our building program under the State Authority includes a new sanatorium in Western Pennsylvania for 500 adult patients and a wing for 50 children suffering from adult type tuberculosis, administrative offices and staff rooms, a dormitory for 100 patient employes—50 men and 50 women—and a dormitory for 100 non-patient employes—50 men and 50 women.

Hamburg will have four new units which will give an additional 200 beds for patients and also a new home for nurses. Ground was broken for this work on November 22, 1937.

Mont Alto, where the buildings are antiquated, will have a new children's hospital with a capacity of 325 beds for children who have childhood type tuberculosis; an infirmary for about 500 adult patients; a wing for 75 children who are suffering from adult type tuberculosis; a new kitchen and dining room; a new home for nurses replacing the present buildings; quarters for 75 non-patient men employes and a dormitory for 100 women non-patient employes. Careful studies of modern tuberculosis institutions were made so that every advantage could be taken of new developments in hospital design.

Our campaign against tuberculosis is aimed chiefly at childhood and early adolescence. If these individuals were cared for in the incipient stages, we feel that patients would not develop tuberculosis after they reach the age of forty—that cases of tuberculosis after that age are in those who had the disease undiagnosed and hence untreated in childhood, who break down in later years due to the stress and strain of life.

Tuberculosis continues each year to kill far too many of our citizens, especially in the age group from 15 to 25 years, the period of education of the youth, and of employment—a time of great civic usefulness—and we are determined to leave nothing undone that will contribute to its ultimate defeat.

CHEST SURGERY

As part of the modern technique in the treatment of tuberculosis emphasis is being placed on chest surgery in certain cases, and for some time we had been sending urgent cases from the State sanatoria to Philadelphia for operation. This had been both expensive and a hardship to the patient and on May 18, 1937 we opened our own modernly equipped temporary operating room at Hamburg Sanatorium, and Dr. Moses Behrend of Philadelphia, performed the first chest surgical operation under our new program.

Assisted by a staff of specially trained assistants and nurses, Dr. Behrend is performing operations regularly, on patients brought in from Mont Alto and Cresson Sanatoria as well as those hospitalized at Hamburg.

This temporary operating room was equipped under Social Security funds and will be used pending the completion of the new surgical unit.

SURGICAL UNIT

During the special session of the 1936 Legislature the sum of \$150,000 was appropriated to the Department of Health for beds for patients suffering from tuberculosis. In view of the modern development in the treatment of tuberculosis, and the importance of Chest Surgery, we felt that this money could best be used to build a permanent unit at Hamburg Sanatorium for these surgical treatments.

The new unit for which ground was broken on April 27, 1937 and corner stone was laid on November 18, 1937 will accommodate 38 patients, during the period of operation and convalescence and will be equipped with two modern operating rooms, an X-ray department, administrative offices and staff rooms. The equipment now installed in the temporary operating room will be moved to the new unit along with the X-ray equipment now in the main building. This new unit will make it possible for the State Department of Health to give to its tuberculosis patients all the advantages now known to modern medicine and surgery for treating tuberculosis.

The new program for chest surgery has been but a small part of our campaign. New State clinics have been added, and when necessary more hours were added to the existing clinics.

NEW LEGISLATION

State Board of Undertakers

Under Act No. 416, approved July 19, 1935, the State Board of Undertakers was transferred to the Department of Health from the Department of Public Instruction, the Secretary of Health was made an ex-officio member of the Board, and provision made for the appointment of inspectors.

Vitamin Products

Under the provisions of Act No. 423, approved July 19, 1935, appropriating \$25,000 for the purchase and distribution of vitamin products to certain pupils in the public schools, 780,233 dicalcium phosphate tablets and 457,380 A B C Capsules have been distributed in 16 counties of the State. The most intensive program was carried on in Blair County.

State Board of Housing

Act No. 359 approved June 5, 1937, created in the Department of Health a State Board of Housing, empowered to study housing conditions and needs, and to devise ways and means to eliminate slums so that better living conditions will be provided for families of low income.

There are all too many slums where our people live under insanitary conditions, in overcrowded buildings lacking proper light and air. This constitutes a state of affairs prejudicial to the public health. We believe this Board will be able to do much to bring about a better public health by improving unsatisfactory housing conditions throughout the State.

The work is now actually under way with the appointment of the Housing Board, an Executive Director, Assistant Director, a Publicity Director, and a Technical Advisor.

Plumbing Code

Act No. 44, approved March 31, 1937, amends existing laws governing plumbing in cities of the second and third class. In cities as heretofore, enforcement of the Act is vested in the local city officials. In districts outside of cities, administration of the Act is placed in the hands of the Department of Health but permits local administra-

tion under which examining boards and inspectors may be appointed by the local authorities and approved by the Department of Health.

A small supervising unit has been established in the Bureau of Engineering, through which plumbers throughout the State are fully acquainted with the provisions of the Law. Arrangements have been made with existing examining boards in some cities to examine for license or for re-registration plumbers already licensed. In such cases, local officials certify facts to the Department of Health and a license or a certificate of re-registration is issued to the plumber by the Department.

A Chief Plumbing Inspector and two district plumbing inspectors have been appointed. These inspectors also examine all plumbing plans for State buildings and approve them if in conformity with the provisions of the new law. This applies whether or not the State building is within the territory prescribed by the Act, it being felt that the State should set an example in this respect and install its plumbing in accordance with this new law.

Stream Pollution

Act No. 394, approved June 22, 1937, effective September 1, 1937, provides a comprehensive law governing stream pollution, which heretofore had been covered only by the Purity of Waters Act of 1905.

The original stream pollution Act covered subjects of public water supply and sewerage. The new Act relates wholly to pollution of the waters of the Commonwealth, strengthening the powers of the Sanitary Water Board. Thus the new Act is much broader in its scope than the Purity of Waters Act.

The Sanitary Water Board is already proceeding under this Act to apply its provisions in control of the discharge of sewage from municipalities and has up to this time issued notices to a number of municipalities to proceed with the studies necessary to determine the details of their respective problems relative to stream pollution, to the end that proper steps may be taken to bring about their abatement. This has been done generally in terms of a given watershed or portions thereof in which notices have been sent to all of the offending municipalities. Studies are being made of other cases to determine the future action of the Board. In several instances, the Board has held hearings to discuss with municipal officers their

particular problems in an endeavor to work out some satisfactory method of procedure. At these hearings, discussion is had, not merely of the physical problems involved, but likewise of the financial aspects of the case, which have an important bearing on the action a municipality may take.

The Department of Health through the Bureau of Engineering, is collecting and considering facts concerning the discharge of industrial wastes into the waters of the Commonwealth. Orders have been given to certain industrial establishments to take the necessary steps to bring about abatement, and in other instances industries have submitted plans for treatment works for industrial wastes which are being studied preparatory to the issuance of permits which will stipulate the conditions under which such plants may be operated.

Vitamin Products

Under Act 96-A, approved July 2, 1937, providing an appropriation of \$25,000 for the continuation of work begun under Act 423, approved July 19, 1935, it is our intention to purchase Haliver Oil capsules which will be dispensed under the supervision of our Field Nutritionists.

Research in Nutrition

Under Act 105-A, approved July 2, 1937, making an appropriation to the Department of Health for the use of Pennsylvania State College for research in nutrition, comprehensive plans are being completed to carry out the provisions of the Act.

Ophthalmia Neonatorum

Under Act 97-A, approved July 2, 1937, making an appropriation for the care and treatment of babies suffering with ophthalmia neonatorum, we have designated the Wills Hospital, Philadelphia, and the Pittsburgh Eye and Ear Hospital, Pittsburgh, as treatment centers for the eastern and western districts of the State, respectively.

Deafness in Pre-School Children

Under Act No. 554, approved July 2, 1937, providing for the treatment of pre-school children suffering from impaired hearing, we have formulated a letter to physicians and nurses, and report blanks

for the reporting of such cases to the central office of the Department. Upon receipt of reports, cases will be investigated and where necessary treatment cannot be provided by the parent, the child will be referred to a qualified physician for treatment.

Birth Certificates

Under Act 103, approved April 22, 1937, effective September 1, 1937, Local Registrars are authorized to issue directly to parents copies of Mothers Notification Certificates covering new births. This has eliminated the unfortunate delay which has heretofore existed in getting certificates into the hands of parents.





